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Mineral Production in Illinois
in 1971 and Summary of
Illinois Mineral Production
by Commodities, 1941-1970

W. L. Busch

ILLINOIS STATE GEOLOGICAL SURVEY

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MINERAL PRODUCTION IN ILLINOIS IN 1971 AND SUMMARY OF ILLINOIS MINERAL PRODUCTION BY COMMODITIES, 1941-1970

W. L. Busch

ABSTRACT

Minerals produced in Illinois during 1971 were valued at 729.7 million dollars. This amount was 13.4 million dollars, or 1.9 percent, higher than the record production of 716.3 million dollars established in 1970. The record production of 1971 was the sixth successive all-time high in total annual mineral value in the state. During 1971 stone, common sand, gravel, tripoli, and fluorspar had gains in value from their respective total values for 1970. Other mineral products showing gains from their 1970 values were portland cement, masonry cement, lime, and clay products. The total value of coal, the state's most important single mineral value, showed a slight loss from its 1970 value. Other Illinois mineral products also showing losses in 1971 from their 1970 values include crude oil, silica sand, zinc, and lead. The quantity and the value of minerals produced in Illinois in 1971, and in other years, are summarized in the tables and maps of this report.

PRODUCTION OF MINERAL PRODUCTS SUMMARIZED IN LISTED TABLES

Material	Table Number	Material	Table Number
Coal	1, 2, 3, 4, 5, 6, 14	Silica sand	1, 2, 3, 11, 14
Crude oil	1, 2, 3, 7, 14	Fluorspar	1, 2, 3, 13, 14
Stone	1, 2, 3, 8, 14	Zinc	1, 2, 3, 14
Cement	1, 2, 3, 14	Lead	1, 2, 3, 14
Clay products	1, 2, 3, 12, 14	Lime*	3, 14
Common sand	1, 2, 3, 9, 14	Tripoli*	14
Gravel	1, 2, 3, 10, 14	Natural bonded molding sand*	14

*Production figures not available for publication.

ILLINOIS MINERAL INDUSTRY

Illinois mineral production in 1971 was valued at 729.7 million dollars. This amount was the highest total annual value ever recorded for mineral production in the state. Although the total mineral value for 1971 was only 1.9 percent greater than the 716.3 million dollars worth of minerals reported for 1970, the values of several mineral commodities produced in 1971 showed a substantial increase over the corresponding 1970 values. These mineral products include stone, masonry cement, clay products, common sand, gravel, and fluorspar. However, the value of crude oil showed a mild decline, and the metals, zinc and lead, showed severe declines from their 1970 values (tables 1 and 2).

The value of fuels produced in Illinois during 1971 amounted to 62.3 percent of the value of all minerals. A decrease in the total value of these fuels—coal and crude oil—from the 1970 value amounted to about 6.8 million dollars. However, increases in the values of other Illinois mineral products more than offset the decline in the combined value of coal and crude oil. For 1971, coal contributed 43.7 percent of the state's total mineral value and oil supplied about 18.6 percent.

Stone products produced in Illinois include crushed stone, cement, and lime. These make up the second most important group of minerals produced in the state. The tonnage and total value of crushed stone reported produced by commercial operators during 1971 showed increases of 3.4 percent and 8.2 percent, respectively, over the tonnage and value reported for 1970. Shipments of portland cement declined in quantity during 1971 by 4.6 percent, but the value of these shipments increased 2.9 percent from the value of the 1970 shipments. Masonry cement shipments increased in quantity and in value in 1971 from the amount and value of shipments made in 1970. The amount and the value of lime produced in 1971 were virtually unchanged from 1970. As a group, the stone products contributed 18.3 percent of the state's total mineral value in 1971.

Illinois clay products, which include such items as face brick and common brick, drain and sewer tile, refractories, and pottery and whiteware, had a total reported value of 59.3 million dollars in 1971. This amount was an increase of about 10 percent from the 53.9 million dollars worth of clay products reported produced in 1970. The 1971 production of clay products amounted to 8.1 percent of the state's total mineral products value for the year.

Common sand and gravel production in 1971 showed increases in total tonnage, total value, and average value per ton. The total value of silica sand produced in Illinois in 1971 was less than the 1970 value because of a slight decrease in the number of tons produced; however, the average value per ton was \$3.86 in 1971, slightly higher than the \$3.84 per ton value in 1970. In 1971 all sands and gravel together furnished 9.3 percent of the total Illinois mineral products value.

Fluorspar, lead, and zinc produced from Illinois mines had a combined value of about 14.3 million dollars in 1971. The combined total value of these minerals was slightly higher than the combined value for 1970. In 1971, as in 1970, these three minerals accounted for 2.0 percent of the state's total mineral value.

Record of the Illinois Mineral Industry, 1971

Each of the 14 tables published in this report is summarized here under its table number and title. Additional information pertinent to the subjects of many of the tables is also provided.

Table 1 - Summary of Illinois Mineral Production, 1970-1971

Items listed in table 1 for the years 1970 and 1971 are the minerals produced in Illinois, the amounts reported produced by commercial operators, the total annual value for each product, and the state-wide average value per ton or barrel for each product. The values of the mineral products listed under footnote "c" were combined to avoid revealing the output of any individual producer of these commodities.

Table 2 - Comparison of Illinois Mineral Production in 1970 and 1971

All of the mineral products listed in table 1 are also listed in table 2. The figures entered in table 2 indicate by the amounts and values whether the production and value of each product in 1971 were greater or less than in 1970. The balance of increases and declines in value for the mineral products shows a total net gain of 13.4 million dollars, or an increase of 1.9 percent, for 1971 over 1970.

Table 3 - Summary of Illinois Mineral Production by Commodities, 1941-1970

Table 3 shows the amounts and values of minerals produced in Illinois for a 30-year period, 1941-1970. During this period the total annual value of Illinois minerals reported produced grew from 335.5 million dollars in 1941 to 716.3 million dollars in 1970; it increased to 729.7 million dollars in 1971. Figures at the end of table 3 (p. 18) give the percentages of the state total value contributed by the various segments of the Illinois mineral industry and show changes in their relative positions.

Table 4 - Illinois Coal Production by Counties, 1971

Illinois coal production in 1971 amounted to 58.4 million tons and was valued at 318.9 million dollars, for a state-wide average value of \$5.46 per ton. In 1971 Illinois ranked fourth among coal-producing states of the nation and was exceeded in production only by Kentucky, West Virginia, and Pennsylvania. Illinois mines supplied about 10.6 percent of all bituminous coal produced in the United States in 1971.

In 1971, 63 mines located in 24 Illinois counties produced coal, the value of which represented 43.7 percent of the value of all minerals produced in the state during the year. Of the 58.4 million tons of coal mined in Illinois in 1971, approximately 50.4 percent came from underground mines and about 49.6 percent was produced by strip mines. The 24 Illinois counties that produced coal in 1971 are shown on the county map in figure 1, and the intensity of mining activity is indicated by the degree of shading.

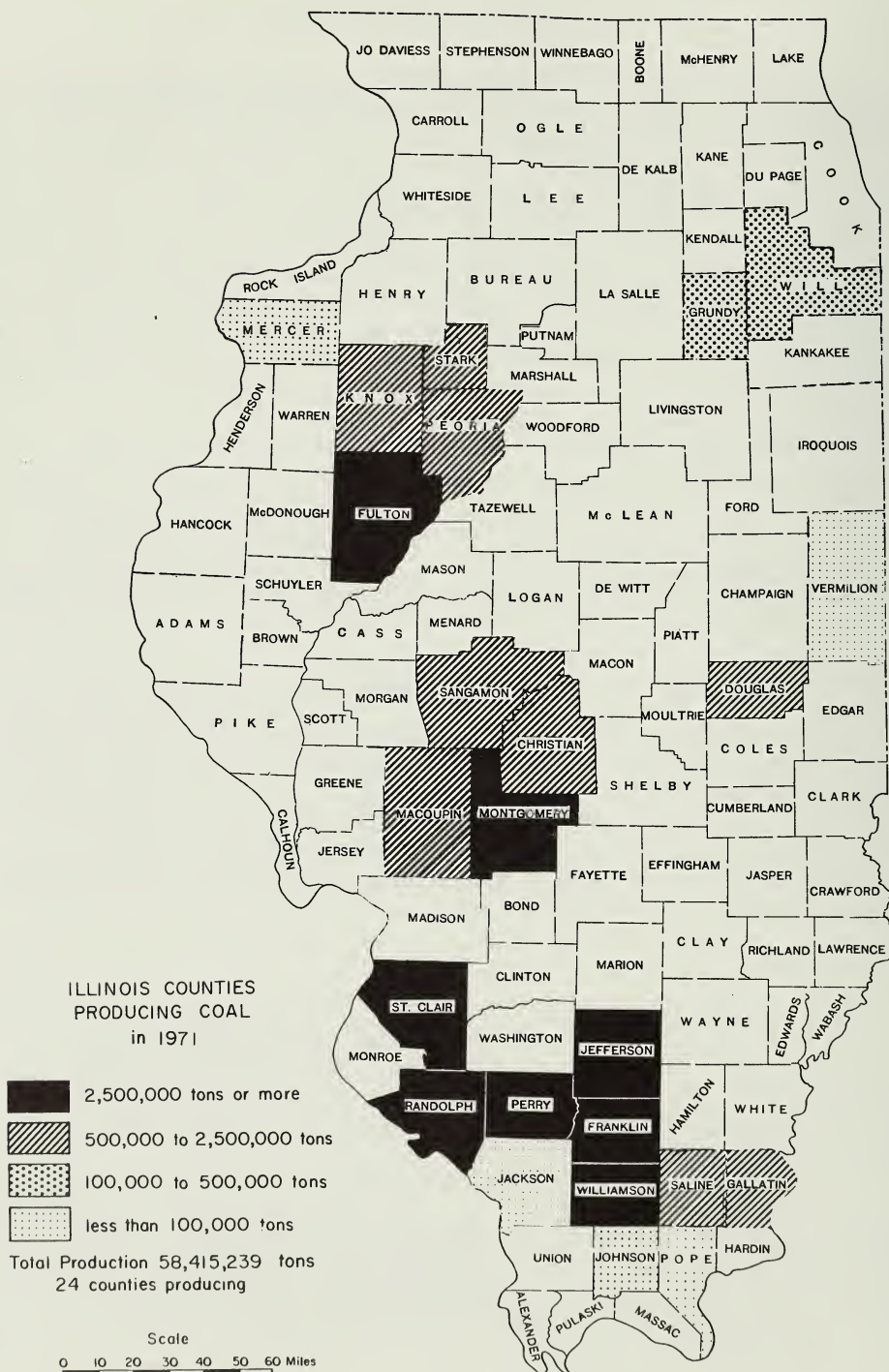


Fig. 1 - Illinois coal production by counties in 1971.

Table 5 - Number of Illinois Coal Mines, Producing Counties, and Employees, 1952-1971

The brief history of Illinois coal mining shown by table 5 is of special interest. The table records the total number of mines operating throughout the state. It shows that fewer mines were active in 1971 than in 1952. Of the counties in which coal was mined during the 20-year period, fewer were producing coal in 1971 than in 1952.

This table also indicates that the total number of employees engaged in the mining of coal over the years has declined from almost 24,000 in 1952 to less than half that number in 1971. Practically all of the drop-off in the number of employees engaged in mining Illinois coal has occurred in the underground sector of the industry.

Table 6 - Coal Production by Illinois Counties, 1882-1971

The cumulative coal production by Illinois counties from 1882 through 1971 is recorded in table 6. More than 4.2 billion tons of coal were produced from Illinois mines during this 90-year period. Of the 71 counties that have produced some coal since 1882, only 12 have a record of continuous production for the full 90 years. Further, there are 13 Illinois counties which produced more than 100 million tons of coal each during the same 90-year period. As a group, these 13 counties supplied more than 3.4 billion tons, or 80.4 percent, of the state's total coal output from 1882 through 1971. Table 6 also records the total number of years that each county produced coal during this period and the most recent year that it was productive during this time.

Table 7 - Estimated Oil Production by Illinois Counties, 1888-1971

Production of crude oil in Illinois for 1971 was estimated at 39.1 million barrels, a decline of about 4.7 million barrels from the 43.8 million barrels produced in 1970. The value of crude oil produced in Illinois during 1971 amounted to about 135.6 million dollars. Based on the 1971 average price of \$3.47 per barrel for Illinois oil, the total value of this commodity in 1971 was almost 6.6 million dollars less than the 1970 total value of 142.2 million dollars.

The estimated amount and value of oil produced by county in 1971 and each county's percentage of the state total are given in table 7. This table also indicates the total estimated oil production for each county for the period 1888 through 1971. Of the 42 counties producing oil in 1971 (fig. 2), 11 counties produced more than 1 million barrels each, for a total of 31.6 million barrels, or about 80.8 percent of the state's entire oil production for 1971.

Table 8 - Illinois Stone Production by Regions, 1971

Commercial quarry operators reported a production of 54.6 million tons of crushed and broken stone in 1971, which was valued at 90.0 million dollars, for an average value of \$1.65 per ton. The tonnage produced in 1971 was 1.8 million tons greater than the 1970 amount and was supplied by 254 operations located in 67 counties throughout the state.

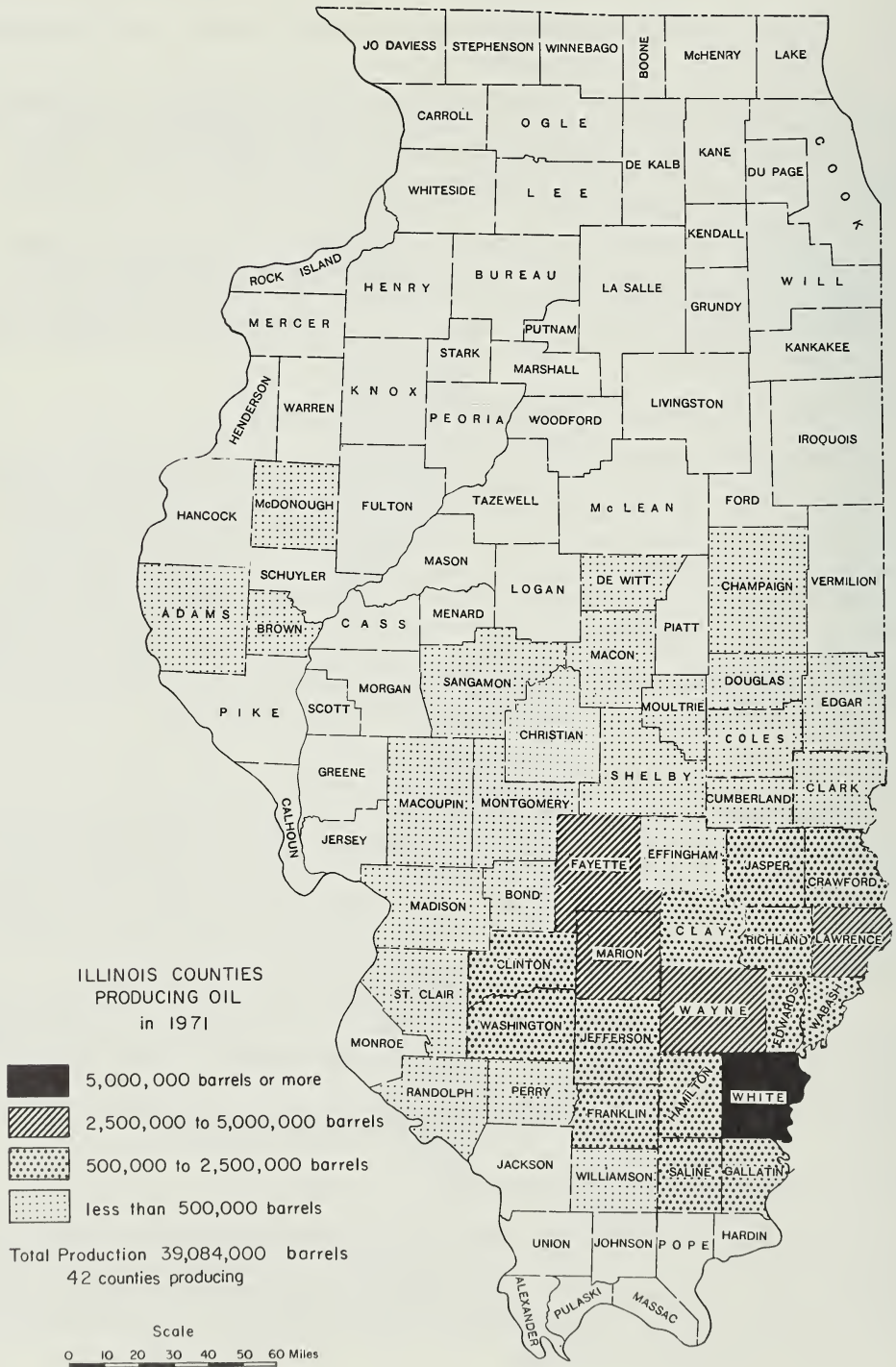


Fig. 2 - Illinois oil production by counties in 1971.

Stone production in Illinois by regions (fig. 3) and according to three divisions of use—road and building, agriculture, and all other uses—is given in table 8. This table lists all counties reporting stone production and the average value at the quarry for all stone uses in all regions for 1971. The value of crushed stone plus the values of the stone products, cement and lime, furnished about 18.3 percent of the total Illinois mineral products value for 1971.

Table 9 - Illinois Common Sand Production by Regions, 1971

Table 10 - Illinois Gravel Production by Regions, 1971

Commercial producers of common sand and gravel in Illinois reported the combined production of 42.3 million tons of these materials with a combined total value of 50.3 million dollars for 1971. According to the production figures tabulated in table 9 (sand) and in table 10 (gravel), the Northeast Region of Illinois was the foremost producer of these products in 1971. The second most important region in the production of sand and gravel in 1971 was the Central Region, followed by the Northwest Region in third place (fig. 3).

Tables 9 and 10 indicate the amounts and values of sand and gravel produced in each region of the state. These tables also list all counties producing sand and gravel and the average value at the pit for all uses of sand or gravel in all regions in 1971.

Table 11 - Illinois Silica Sand Production, 1970-1971

La Salle County was the leading producer of silica sand in Illinois in 1971. Smaller amounts were produced in Ogle County. In 1971 the most important use for Illinois silica sand was in the manufacture of glass. Its second most important use was for molding sand purposes. Table 11 shows the amounts and values of silica sand produced in Illinois during 1970 and 1971. The combined value of all sands and gravel produced in Illinois during 1971 amounted to 9.3 percent of the value of all minerals produced in the state for the year.

Table 12 - Production of Illinois Clay Products, 1970-1971

The value of clay products reported produced in Illinois during 1971 amounted to 59.3 million dollars. This was an increase of 5.4 million dollars over the 53.9 million dollar total reported for 1970. In 1971, 33 clay products plants located in 21 counties throughout Illinois reported production. In 1970, 34 plants located in 22 Illinois counties reported production. The total value of clay products produced in 1971 was about 8.1 percent of the value of all minerals produced in the state.

Table 13 - Fluorspar Shipped and Consumed, 1960-1971

Illinois, the nation's leading fluorspar-producing state, produces this material principally in Hardin County, but small amounts come from Pope County. Both counties are located in the southern part of the state.

Fluorspar figures for 1971 indicate that Illinois producers shipped a total of 138,051 tons of this material, which was valued at 9.9 million dollars, for an average price of \$71.59 per ton. Illinois fluorspar shipments for 1971 amounted



Fig. 3 - County outline map of Illinois showing regional divisions of the state.

to almost 51 percent of all fluorspar produced and shipped in the United States. Of the 1.3 million tons of domestic and foreign fluorspar consumed in the United States in 1971, Illinois fluorspar shipments supplied about 10.3 percent.

Table 14 - Summary of Minerals Produced by Illinois Counties, 1971

Table 14 is a reference to the 102 counties of Illinois producing any of 14 mineral products. The table indicates the mineral products produced in the state, and the numbers within the columns show the relative position held by each county among all counties producing a selected mineral product.

TABLE 1 - SUMMARY OF ILLINOIS MINERAL PRODUCTION, 1970-1971^a

Material	Unit	1970 ^b			1971 ^b		
		Quantity	Value at plants		Quantity	Value at plants	
			Total	Average		Total	Average
Coal - bituminous	tons	64,884,103	\$319,229,787	\$ 4.92	58,415,239	\$318,947,205	\$ 5.46
Crude oil	bbl	43,747,000	142,177,750	3.25	39,084,000	135,621,480	3.47
Limestone and dolomite	tons	52,738,643	83,153,858	1.58	54,557,582	89,997,087	1.65
Cement - portland 376 lb	bbl	7,945,922	25,251,894	3.18	7,578,287	25,974,803	3.43
Cement - masonry 280 lb	bbl	507,782	1,874,417	3.69	521,766	2,335,759	4.48
Clay products	-	-	53,934,711	-	-	59,372,033	-
Sand	tons	17,750,187	18,349,982	1.03	19,270,267	21,145,242	1.10
Gravel	tons	21,378,490	24,731,904	1.16	23,015,890	29,174,869	1.27
Silica sand	tons	4,365,968	16,769,037	3.84	4,218,871	16,282,042	3.86
Fluorspar	tons	148,208	8,637,000	58.28	138,051	9,882,936	71.59
Zinc	tons	16,797	5,146,200	306.00	12,706	4,091,493	322.00
Lead	tons	1,532	478,600	312.00	1,238	341,620	276.00
Other materials ^c	-	-	16,564,860	-	-	16,533,431	-
Total value			\$716,300,000			\$729,700,000	

^aTable based on figures from the U.S. Bureau of Mines, the Illinois State Department of Mines and Minerals, and the Illinois State Geological Survey.

^bSubject to revision.

^cIncludes lime, tripoli, natural gas, natural bonded molding sand, and sandstone.

TABLE 2 - COMPARISON OF ILLINOIS MINERAL PRODUCTION IN 1970 and 1971*

Material	Unit	Production change, 1970-1971			Value change, 1970-1971		
		Increase	Decrease	Percent	Increase	Decrease	Percent
Coal - bituminous	tons	-	6,468,864	- 10.0	\$ -	\$ 282,582	- 0.1
Crude oil	bbl	-	4,663,000	- 10.7	-	6,556,270	- 4.6
Limestone and dolomite	tons	1,818,939	-	+ 3.4	6,843,229	-	+ 8.2
Cement - portland 376 lb	bbl	-	367,635	- 4.6	722,909	-	+ 2.9
Cement - masonry 280 lb	bbl	13,984	-	+ 2.8	461,342	-	+ 24.6
Clay products	-	-	-	-	5,437,322	-	+ 10.1
Sand	tons	1,520,080	-	+ 8.6	2,795,260	-	+ 15.2
Gravel	tons	1,637,400	-	+ 7.7	4,442,965	-	+ 18.0
Silica sand	tons	-	147,097	- 3.4	-	486,995	- 2.9
Fluorspar	tons	-	10,157	- 6.9	1,245,936	-	+ 14.4
Zinc	tons	-	4,091	- 24.4	-	1,054,707	- 20.5
Lead	tons	-	294	- 19.2	-	136,980	- 28.6
Other materials	-	-	-	-	-	31,429	- 0.2
Total values					\$21,948,963	\$8,548,963	-
1971 net increase over 1970 value					\$13,400,000	-	+ 1.9

*Table 2 based on figures tabulated in table 1.

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TABLE 3 — SUMMARY OF ILLINOIS MINERAL PRODUCTION BY COMMODITIES, 1941-1970^{a,b}

Year	Coal			Crude oil		
	Tons	Value	Average per ton	Barrels	Value	Average per bbl
1941	55,365,835	\$100,212,000	\$1.81	134,138,000	\$174,379,400	\$1.30
1942	65,746,204	125,575,000	1.91	106,590,000	144,962,400	1.36
1943	73,344,761	156,224,000	2.13	82,256,000	112,700,000	1.37
1944	77,400,031	172,602,000	2.23	77,413,000	107,370,000	1.39
1945	73,446,930	171,866,000	2.34	75,210,000	105,294,000	1.40
1946	63,767,082	166,432,000	2.61	75,297,000	119,722,000	1.59
1947	68,325,241	215,224,000	3.15	66,459,000	139,564,000	2.10
1948	66,166,805	256,728,000	3.88	64,808,000	179,518,000	2.77
1949	47,630,380	192,426,000	4.04	64,501,000	178,668,000	2.77
1950	57,282,303	231,993,000	4.05	62,028,000	171,818,000	2.77
1951	54,869,679	223,320,000	4.07	60,244,000	166,876,000	2.77
1952	45,752,588	187,585,600	4.10	60,071,000	166,397,000	2.77
1953	45,966,114	181,566,200	3.95	59,025,000	171,586,000	2.91
1954	41,775,752	159,583,373	3.82	66,940,000	200,820,000	3.00
1955	45,711,555	167,304,290	3.66	81,131,000	237,713,830	2.93
1956	47,804,040	183,567,514	3.84	82,314,000	242,826,300	2.95
1957	46,682,889	186,731,556	4.00	76,649,000	239,911,400	3.13
1958	43,777,130	175,984,063	4.02	80,779,000	242,337,000	3.00
1959	45,374,626	184,220,982	4.06	76,727,000	230,181,000	3.00
1960	45,820,632	183,740,734	4.01	77,341,000	230,338,000	2.98
1961	45,132,526	176,468,177	3.91	77,478,000	232,434,000	3.00
1962	48,353,913	186,646,104	3.86	78,800,000	236,400,000	3.00
1963	51,642,431	196,241,238	3.80	74,796,000	221,396,160	2.96
1964	54,834,488	207,822,710	3.79	70,168,000	205,592,240	2.93
1965	58,232,480	217,789,475	3.74	63,708,000	186,664,440	2.93
1966	63,212,697	243,368,883	3.85	61,982,000	185,946,000	3.00
1967	64,814,771	251,481,312	3.88	60,115,000	181,547,300	3.02
1968	62,143,076	249,193,735	4.01	56,391,000	173,120,370	3.07
1969	64,832,584	280,076,763	4.32	50,724,000	161,302,320	3.18
1970	64,884,103	319,229,787	4.92	43,747,000	142,177,750	3.25

^a Table based on figures from the Illinois State Geological Survey annual mineral production reports.

^b Subject to revision.

MINERAL PRODUCTION IN ILLINOIS IN 1971

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TABLE 3^{a,b} - Continued

Year	Crushed stone			Cement		
	Tons	Value	Average per ton	Barrels	Value	Average per bbl
1941	12,206,136	\$11,104,104	\$0.91	6,033,440	\$ 8,799,667	\$1.46
1942	14,006,556	13,014,429	0.93	7,087,400	10,284,111	1.45
1943	11,429,102	10,654,148	0.93	4,504,442	6,965,607	1.55
1944	10,668,128	10,689,477	1.00	3,597,074	5,592,703	1.55
1945	11,122,679	11,340,341	1.02	4,509,932	7,654,876	1.70
1946	16,199,882	17,512,579	1.08	7,069,779	12,421,968	1.76
1947	15,786,379	18,424,089	1.17	7,515,955	14,164,976	1.88
1948	18,593,042	23,379,762	1.26	7,875,758	16,078,433	2.04
1949	17,300,130	21,328,699	1.23	8,200,148	17,340,782	2.11
1950	18,283,655	22,099,967	1.21	8,145,885	17,810,417	2.19
1951	19,005,400	23,082,600	1.20	8,648,647	20,775,900	2.40
1952	22,606,000	28,835,300	1.27	9,042,260	21,663,400	2.40
1953	22,000,000	27,300,000	1.24	9,100,000	23,114,000	2.54
1954	23,089,000	29,400,700	1.27	9,419,600	24,246,500	2.57
1955	24,400,630	29,829,205	1.22	9,397,098	25,031,520	2.66
1956	28,005,490	38,092,089	1.36	9,301,189	27,263,794	2.93
1957	28,140,100	38,750,105	1.38	8,575,129	26,356,365	3.07
1958	33,064,789	43,876,091	1.33	9,618,339	30,858,270	3.21
1959	31,909,142	41,746,465	1.31	9,924,486	31,793,942	3.20
1960	37,032,017	50,978,358	1.38	9,139,300	30,732,000	3.36
1961	33,576,884	45,835,938	1.37	9,055,552	29,720,368	3.28
1962	38,528,222	52,313,576	1.36	9,585,862	31,525,449	3.29
1963	35,887,632	47,754,695	1.33	9,752,676	32,016,873	3.28
1964	38,625,836	52,280,405	1.35	10,386,482	34,229,220	3.30
1965	43,293,426	57,805,266	1.34	9,973,688	32,528,864	3.26
1966	42,579,368	57,412,100	1.35	9,817,471	30,485,395	3.11
1967	44,836,956	63,116,345	1.41	9,660,045	32,036,282	3.32
1968	52,665,155	77,194,915	1.47	9,974,166	34,572,348	3.47
1969	51,681,297	78,428,150	1.52	9,323,180	32,133,405	3.45
1970	52,738,643	83,153,858	1.58	8,453,704	27,126,311	3.21

^aTable based on figures from the Illinois State Geological Survey annual mineral production reports.

^bSubject to revision.

TABLE 3^{a,b} - Continued

Year	Lime			Common sand		
	Tons	Value	Average per ton	Tons	Value	Average per ton
1941	246,278	\$1,723,850	\$6.99	5,038,032	\$ 2,249,091	\$0.45
1942	314,077	2,266,152	7.21	5,469,306	2,627,665	0.48
1943	314,735	2,386,540	7.58	3,552,391	1,763,612	0.50
1944	290,988	2,266,539	7.78	2,956,570	1,450,369	0.49
1945	287,607	2,228,909	7.75	3,306,383	1,708,718	0.49
1946	280,051	2,365,455	8.45	4,830,604	2,851,548	0.59
1947	299,187	2,736,262	9.15	4,535,616	3,110,206	0.69
1948	283,090	3,000,225	10.60	5,738,402	4,133,668	0.72
1949	276,161	3,197,890	11.58	6,767,406	5,007,363	0.74
1950	367,485	4,465,413	12.15	6,467,478	4,777,106	0.74
1951	462,690	5,878,300	12.70	6,607,153	4,854,700	0.74
1952	460,775	5,917,000	12.84	6,822,660	4,924,600	0.72
1953	520,000	6,987,000	13.44	6,882,850	5,108,500	0.74
1954	532,050	7,420,850	13.95	8,050,990	5,911,535	0.73
1955	644,180	9,416,135	14.62	7,750,860	5,996,735	0.77
1956	Refer to footnote c		15.25	10,461,300	7,852,592	0.75
1957			16.57	9,424,163	7,252,004	0.77
1958			16.69	11,461,532	10,360,460	0.90
1959			16.30	10,977,478	9,895,321	0.90
1960			16.37	11,988,786	10,633,054	0.89
1961			16.31	12,178,037	10,776,163	0.88
1962			16.29	13,880,962	11,943,268	0.86
1963			16.51	12,556,556	10,698,382	0.85
1964			16.61	13,681,000	11,864,000	0.87
1965			15.73	13,424,000	11,356,000	0.85
1966			15.53	14,371,000	12,139,000	0.84
1967			15.38	15,562,000	13,183,000	0.85
1968			15.05	18,580,000	16,288,000	0.88
1969			15.61	17,593,298	17,275,700	0.98
1970			15.52	17,750,187	18,349,982	1.03

^aTable based on figures from the Illinois State Geological Survey annual mineral production reports.

^bSubject to revision.

^cLime production figures restricted after 1955. Lime values 1956-1970 recorded in "Other commodities" value column.

TABLE 3^{a,b} - Continued

Year	Gravel			Fluorspar		
	Tons	Value	Average per ton	Tons	Value	Average per ton
1941	8,336,247	\$ 3,832,278	\$0.46	133,333	\$3,047,247	\$22.85
1942	9,350,636	4,831,864	0.52	161,949	4,306,750	26.59
1943	6,789,760	3,348,897	0.49	198,789	6,292,789	31.66
1944	6,057,765	2,968,300	0.49	176,259	5,954,991	33.79
1945	6,093,060	2,975,805	0.49	147,251	5,014,807	34.06
1946	10,259,669	5,809,757	0.57	154,525	5,493,642	35.55
1947	8,275,141	4,818,399	0.58	167,157	6,148,654	36.78
1948	9,353,275	6,059,445	0.65	172,561	6,322,246	36.64
1949	8,510,918	5,516,198	0.65	120,881	4,621,733	38.23
1950	9,763,933	6,687,958	0.68	154,623	6,110,765	39.52
1951	8,521,200	6,398,500	0.75	204,328	9,294,700	45.49
1952	8,758,635	6,253,800	0.71	188,300	9,481,200	50.35
1953	8,108,750	6,166,200	0.76	163,300	8,567,000	52.46
1954	11,991,625	9,350,965	0.78	107,830	5,989,219	55.54
1955	10,637,000	8,990,175	0.85	166,337	7,838,470	47.12
1956	12,776,606	10,570,480	0.83	178,254	8,469,450	47.51
1957	12,817,007	11,018,425	0.86	169,939	8,827,171	51.94
1958	16,578,457	15,696,087	0.95	152,087	7,930,613	52.15
1959	14,075,667	12,829,862	0.91	112,469	5,908,307	52.53
1960	14,615,153	13,694,589	0.94	134,529	6,935,511	51.55
1961	15,649,754	13,977,679	0.89	116,908	5,956,350	50.95
1962	16,123,325	15,040,907	0.93	132,830	6,391,673	48.12
1963	14,558,143	14,099,915	0.97	132,060	6,547,149	49.58
1964	16,567,000	16,716,000	1.01	127,454	6,451,755	50.62
1965	18,194,000	16,508,000	0.91	159,140	7,861,165	49.40
1966	19,027,000	17,296,000	0.91	176,175	8,001,803	45.42
1967	17,946,000	17,191,000	0.96	210,207	9,858,743	46.90
1968	21,626,000	22,380,000	1.03	188,325	9,134,132	48.50
1969	21,267,490	23,054,205	1.08	88,480	4,676,065	52.85
1970	21,378,490	24,731,904	1.16	148,208	8,637,000	58.28

^aTable based on figures from the Illinois State Geological Survey annual mineral production reports.

^bSubject to revision.

TABLE 3^{a,b} - Continued

Year	Zinc			Lead		
	Tons	Value	Average per ton	Tons	Value	Average per ton
1941	9,198	\$1,379,700	\$150.00	2,376	\$ 270,864	\$114.00
1942	9,389	1,746,354	186.00	2,344	314,096	134.00
1943	5,851	1,263,816	216.00	2,043	306,450	150.00
1944	7,262	1,655,736	288.00	1,971	315,360	160.00
1945	8,310	1,911,300	230.00	3,005	516,860	172.00
1946	8,798	2,146,712	244.00	3,865	842,570	218.00
1947	10,073	2,437,666	242.00	2,325	674,250	290.00
1948	12,980	3,452,680	266.00	3,695	1,322,810	358.00
1949	18,157	4,502,936	248.00	3,824	1,208,384	316.00
1950	26,982	7,500,996	278.00	2,729	725,914	266.00
1951	21,776	7,926,500	364.00	3,160	1,093,364	346.00
1952	18,816	6,246,900	332.00	4,262	1,372,400	322.00
1953	14,556	3,173,200	218.00	3,391	902,000	266.00
1954	14,427	3,116,230	216.00	3,232	885,570	274.00
1955	21,700	5,338,200	246.00	4,544	1,354,112	298.00
1956	24,039	6,586,686	274.00	3,832	1,203,248	314.00
1957	22,185	5,146,920	232.00	2,970	849,420	286.00
1958	24,940	5,087,760	204.00	1,610	376,740	234.00
1959	26,815	6,167,450	230.00	2,570	591,100	230.00
1960	29,550	7,623,900	258.00	3,000	702,000	234.00
1961	26,795	6,162,850	230.00	3,430	706,580	206.00
1962	27,413	6,304,990	230.00	3,610	664,240	184.00
1963	20,337	4,677,510	230.00	2,901	626,616	216.00
1964	13,800	3,753,600	272.00	2,180	571,160	262.00
1965	18,314	5,347,688	292.00	3,005	937,560	312.00
1966	15,192	4,405,680	290.00	2,285	690,756	302.00
1967	20,416	5,652,374	277.00	2,384	667,520	280.00
1968	18,182	4,909,140	270.00	1,467	387,641	264.00
1969	13,765	4,019,400	292.00	791	235,700	298.00
1970	16,797	5,146,200	306.00	1,532	478,600	312.00

^a Table based on figures from the Illinois State Geological Survey annual mineral production reports.

^b Subject to revision.

TABLE 3^{a,b} - Continued

Year	Silver			Silica Sand	Clay products	Other commodities ^d
	Ounces	Value	Average per oz	Value	Value	Value
1941	20,340	\$14,464	\$0.711	\$ 3,722,570	\$19,593,325	\$ 5,175,523
1942	104	74	0.711	5,178,358	19,624,015	7,266,576
1943	2,153	1,531	0.711	6,219,251	17,254,351	12,530,559
1944	2,437	1,733	0.711	5,719,764	15,076,524	11,168,821
1945	2,198	1,563	0.711	4,659,120	18,577,913	10,680,858
1946	2,302	1,860	0.808	4,410,383	32,197,366	7,465,346
1947	1,790	1,620	0.905	5,808,874	32,740,735	12,883,052
1948	4,047	3,663	0.905	6,660,154	43,406,183	17,558,385
1949	3,128	2,831	0.905	6,025,481	37,081,260	10,880,129
1950	2,001	1,811	0.905	7,203,015	47,155,311	10,886,727
1951	3,465	3,136	0.905	8,344,466	53,594,300	10,588,534
1952	3,781	3,400	0.905	7,780,464	43,351,400	11,007,136
1953	2,338	2,100	0.905	8,587,300	46,160,400	12,706,300
1954	1,160	1,050	0.905	10,096,200	47,200,625	15,219,450
1955	3,075	2,783	0.905	10,394,455	54,855,665	6,587,820
1956	1,580	1,430	0.905	11,871,075	59,101,572	15,958,230
1957	No production reported			11,132,438	60,671,157	16,108,211
1958	"	"	"	9,349,497	55,276,000	14,492,419
1959	"	"	"	10,359,801	58,343,921	14,261,849
1960	"	"	"	9,097,150	56,621,065	14,703,639
1961	"	"	"	9,758,772	56,400,489	15,802,634
1962	"	"	"	11,189,766	56,495,460	16,084,567
1963	"	"	"	10,519,854	53,921,080	16,500,528
1964	"	"	"	10,486,000	51,352,545	16,880,365
1965	"	"	"	11,991,000	52,459,500	17,251,042
1966	"	"	"	13,145,000	54,901,990	16,207,393
1967	"	"	"	12,895,000	46,114,642	16,256,482
1968	"	"	"	13,405,000	53,613,873	16,400,846
1969	"	"	"	15,770,919	58,466,631	17,460,742
1970	"	"	"	16,769,037	53,934,711	16,564,860

^aTable based on figures from the Illinois State Geological Survey annual mineral production reports.

^bSubject to revision.

^dRevised figures.

TABLE 3^{a,b} - Continued

Year	State total value annual mineral production	Commodity group values in percentage of state total mineral value, 1941-1970 ^c					
		Coal	Oil & products	Stone products	Clay products	Sand & gravel	Fluorspar & metals
1941	\$335,504,083	30.1	52.9	6.5	6.1	3.0	1.4
1942	341,997,844	36.7	44.2	7.5	5.9	3.8	1.9
1943	337,911,551	46.6	36.3	6.0	5.4	3.4	2.3
1944	342,832,317	50.4	34.2	5.4	4.7	3.0	2.3
1945	344,431,070	49.9	33.3	6.2	5.7	2.7	2.2
1946	379,673,186	43.9	33.2	8.5	8.7	3.5	2.2
1947	458,736,783	46.9	32.9	7.7	7.4	3.1	2.0
1948	567,623,654	45.2	34.5	7.5	7.9	3.0	1.9
1949	487,807,686	39.4	38.7	8.6	7.8	3.4	2.1
1950	539,236,400	43.0	33.6	8.2	9.0	3.5	2.7
1951	542,031,000	41.2	32.6	9.2	9.9	3.7	3.4
1952	500,819,600	37.4	35.2	11.3	8.7	4.0	3.4
1953	501,926,200	36.2	36.7	11.4	9.2	4.0	2.5
1954	519,242,267	30.7	41.6	11.8	9.1	4.9	1.9
1955	570,653,395	29.3	42.7	11.3	9.6	4.5	2.6
1956	613,364,460	30.0	40.6	12.2	9.6	5.0	2.6
1957	612,755,172	30.5	40.1	12.3	9.9	4.8	2.4
1958	611,625,000	28.7	40.5	13.7	9.0	5.8	2.3
1959	606,300,000	30.4	38.7	13.7	9.6	5.5	2.1
1960	615,800,000	29.8	38.0	15.0	9.2	5.5	2.5
1961	604,000,000	29.2	39.1	14.5	9.3	5.8	2.1
1962	631,000,000	29.6	38.0	15.2	8.9	6.2	2.1
1963	615,000,000	31.9	36.3	15.2	8.8	5.9	1.9
1964	618,000,000	33.6	33.5	16.4	8.3	6.5	1.7
1965	618,500,000	35.2	30.3	17.1	8.5	6.6	2.3
1966	644,000,000	37.8	29.0	16.0	8.5	6.7	2.0
1967	650,000,000	38.7	28.0	16.9	7.1	6.8	2.5
1968	670,600,000	37.2	25.9	18.9	8.0	7.9	2.1
1969	692,900,000	40.4	23.3	18.3	8.4	8.3	1.3
1970	716,300,000	44.6	19.9	17.5	7.5	8.5	2.0

^aTables based on figures from the Illinois State Geological Survey annual mineral production reports.

^bSubject to revision.

^cApproximate percentage contributed to state total value by each mineral group per year, 1941-1970.

TABLE 4 - ILLINOIS COAL PRODUCTION BY COUNTIES, 1971^a

County	Number of mines	Tons mined		Total tons	Total value ^b
		Underground	Strip		
Christian	1 ^c	1,830,615	—	1,830,615	\$ 9,995,158
Douglas	1	926,278	—	926,278	5,057,478
Franklin	4	7,443,040	—	7,443,040	40,638,998
Fulton	5	—	4,353,204	4,353,204	23,768,494
Gallatin	3	1,701,257	433,180	2,134,437	11,654,026
Grundy	1 ^d	—	242,429	242,429	1,323,662
Jackson	2	—	87,061	87,061	475,353
Jefferson	4	6,018,644	1,017,979	7,036,623	38,419,962
Johnson	3	—	8,557	8,557	46,721
Knox	1	—	1,431,781	1,431,781	7,817,524
Macoupin	1	1,169,874	—	1,169,874	6,387,512
Mercer	2	33,433	16,863	50,296	274,616
Montgomery	2 ^c	3,451,902	—	3,451,902	18,847,385
Peoria	3	—	2,322,545	2,322,545	12,681,096
Perry	4	—	7,906,928	7,906,928	43,171,827
Pope	1	—	7,012	7,012	38,286
Randolph	3	739,713	2,461,601	3,201,314	17,479,175
St. Clair	4	1,606,978	4,529,975	6,136,953	33,507,763
Saline	8	1,398,980	1,033,646	2,432,626	13,282,138
Sangamon	c	1,002,746	—	1,002,746	5,474,993
Stark	1	—	659,013	659,013	3,598,211
Vermillion	1	32,272	—	32,272	176,205
Will	d	—	463,417	463,417	2,530,257
Williamson	8	2,098,194	1,986,122	4,084,316	22,300,365
Total	63	29,453,926 (50.4%)	28,961,313 (49.6%)	58,415,239	\$318,947,205

^aProduction figures, Illinois State Department of Mines and Minerals.^bAverage mine value for Illinois coal estimated at \$5.46 per ton, 1971.^cOne mine operated in Christian, Montgomery, and Sangamon Counties.^dOne mine operated in Grundy and Will Counties.TABLE 5 - NUMBER OF ILLINOIS COAL MINES, PRODUCING COUNTIES, AND EMPLOYEES, 1952-1971^a

Year	Number of mines			Number of producing counties	Number of employees		
	All mines total	Strip total	Underground total		All mines	Strip	Underground
1971	63	36	27	24	10,571	3,483	7,088
1970	64	35	29	24	10,214	3,429	6,785
1969	62	34	28	24	9,591	3,647	5,944
1968	69	33	36	24	9,538	3,510	6,028
1967	77	44	33	25	8,805	3,413	5,392
1966	84	48	36	26	8,994	3,428	5,566
1965	97	54	43	29	8,790	3,320	5,470
1964	108	62	46	32	9,079	3,376	5,703
1963	116	71	45	35	8,891	3,394	5,497
1962	116	69	47	35	8,774	3,303	5,471
1961	128	73	55	37	8,945	3,408	5,537
1960	142	81	61	38	10,533	3,493	7,040
1959	159	90	69	37	10,897	3,525	7,372
1958	179	102	77	37	11,386	3,787	7,599
1957	195	108	87	35	12,781	3,547	9,234
1956	192	95	97	36	12,936	3,451	9,485
1955	198	82	116	36	13,623	3,187	10,436
1954	206	68	138	37	16,665	3,180	13,485
1953	232	73	159	35	18,945	3,390	15,555
1952	263	71	192	38	23,821	3,422	20,399

^aSource: Illinois State Department of Mines and Minerals.

TABLE 6 - COAL PRODUCTION BY ILLINOIS COUNTIES, 1882-1971*

County	Total production (tons)	Total years active	Last year active	County	Total production (tons)	Total years active	Last year active
Adams	341,924	26	1969	Marshall	12,516,141	70	1951
Bond	7,355,569	57	1942	Menard	13,462,005	84	1965
Brown	65,347	40	1963	Mercer	15,461,682	84	1971
Bureau	53,823,055	80	1964	Monroe	8,284	13	1941
Calhoun	96,247	27	1912	Montgomery	124,005,464	90	1971
Cass	212,477	53	1941	Morgan	190,787	64	1951
Christian	291,111,080	87	1971	Moultrie	2,032,236	16	1924
Clark	4,482	2	1955	Peoria	86,017,157	90	1971
Clay	801	1	1963	Perry	252,304,925	90	1971
Clinton	38,656,325	79	1960	Pike	5,081	8	1942
Coles	198,932	6	1888	Pope	20,542	13	1971
Crawford	45,400	16	1961	Putnam	10,071,893	29	1938
Douglas	11,650,006	26	1971	Randolph	112,170,974	90	1971
Edgar	915,698	41	1952	Richland	154	1	1890
Effingham	796	1	1890	Rock Island	3,846,169	67	1948
Franklin	567,249,030	73	1971	St. Clair	314,249,100	90	1971
Fulton	278,709,732	90	1971	Saline	236,011,325	90	1971
Gallatin	15,280,977	87	1971	Sangamon	236,390,791	85	1971
Greene	693,191	84	1967	Schuyler	7,747,691	84	1966
Grundy	44,051,988	88	1971	Scott	612,476	61	1942
Hamilton	22,097	16	1905	Shelby	4,119,763	67	1950
Hancock	771,281	72	1958	Stark	7,759,167	81	1971
Hardin	40	1	1890	Tazewell	17,633,802	75	1956
Henry	22,910,053	84	1965	Vermilion	164,934,878	90	1971
Jackson	97,369,189	90	1971	Wabash	198,226	36	1964
Jasper	23,739	11	1939	Warren	685,466	73	1954
Jefferson	68,622,230	68	1971	Washington	18,165,386	88	1969
Jersey	120,350	59	1951	White	1,676,741	36	1940
Johnson	287,818	56	1971	Will	43,635,192	90	1971
Kankakee	8,858,008	44	1969	Williamson	400,768,938	90	1971
Knox	56,500,932	90	1971	Woodford	7,810,160	70	1951
La Salle	65,547,638	79	1960	Total (1882-1971)		4,240,792,972	
Livingston	10,111,437	80	1961	Estimated production (1833-1881)		73,386,123	
Logan	14,533,376	84	1968				
Macon	11,000,468	65	1947				
Macoupin	267,416,127	89	1971	Total production (1833-1971)		4,314,179,095	
McDonough	2,634,903	69	1951				
McLean	5,544,139	47	1928				
Madison	164,295,772	83	1964				
Marion	39,247,722	82	1963				

*Production figures, Illinois State Department of Mines and Minerals.

MINERAL PRODUCTION IN ILLINOIS IN 1971

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TABLE 7 — ESTIMATED OIL PRODUCTION BY ILLINOIS COUNTIES, 1888-1971^a

County	Total production ^b 1888-1971	1971 Production		1971 value ^c
		Thousands of barrels	Percent of state total	
Adams	176	4	0.01	\$ 13,880
Bond	7,076	54	0.14	187,380
Brown	222	4	0.01	13,880
Champaign	7	d	—	—
Christian	23,877	418	1.07	1,450,460
Clark-Cumberland	88,350	442	1.13	1,533,740
Clay	125,519	1,821	4.66	6,318,870
Clinton	81,227	708	1.81	2,456,760
Coles	22,059	303	0.78	1,051,410
Crawford	222,275	1,979	5.06	6,867,130
De Witt	2,135	180	0.46	624,600
Douglas	3,506	38	0.10	131,860
Edgar	3,154	103	0.26	357,410
Edwards	43,720	588	1.50	2,040,360
Effingham	14,720	356	0.91	1,235,320
Fayette	374,613	4,677	11.97	16,229,190
Franklin	68,176	773	1.98	2,682,310
Gallatin	47,389	742	1.90	2,574,740
Hamilton	127,797	1,399	3.58	4,854,530
Hancock ^e -McDonough	5,306	42	0.11	145,740
Jasper	47,715	825	2.11	2,862,750
Jefferson	78,106	1,096	2.80	3,803,120
Lawrence	371,328	4,545	11.63	15,771,150
Macon	880	7	0.02	24,290
Macoupin	235	d	—	—
Madison	16,763	121	0.31	419,870
Marion	390,944	3,542	9.06	12,290,740
Monroe	2	—	—	—
Montgomery	116	1	0.00	3,470
Moultrie	88	3	0.01	10,410
Perry	705	17	0.04	58,990
Randolph	4,042	110	0.28	381,700
Richland	95,606	1,340	3.43	4,649,800
St. Clair	3,190	82	0.21	284,540
Saline	19,900	545	1.39	1,891,150
Sangamon	2,173	145	0.37	503,150
Schuyler	1	—	—	—
Shelby	1,486	40	0.10	138,800
Wabash	101,773	1,671	4.28	5,798,370
Washington	27,072	682	1.75	2,366,540
Wayne	224,066	4,149	10.62	14,397,030
White	262,021	5,370	13.74	18,633,900
Williamson	1,157	162	0.41	562,140
Total	2,910,673	39,084	100.00	\$135,621,480

^aSubject to revision.^bIn thousands of barrels.^cAverage price estimated at \$3.47 per barrel.^dChampaign and Macoupin Counties each produced less than 500 barrels of crude oil in 1971.^eNo oil production reported for Hancock County in 1971.

TABLE 8 — ILLINOIS STONE PRODUCTION BY REGIONS, 1971^{a,b}

Producing counties and operations ^c		Stone use	Tons	Value	Average per ton
NORTHWEST					
Carroll	Ogle	Road and			
Henry	Rock Island	building	4,272,488	\$6,128,724	\$1.43
Jo Daviess	Stephenson	Agstone	409,115	654,325	1.60
Lee	Whiteside	All other	357,604	527,845	1.48
Mercer	Winnebago				
Operations — 89		Total	5,039,207	\$7,310,894	\$1.45
WEST					
Adams	Knox	Road and			
Brown	McDonough	building	2,153,062	\$3,463,243	\$1.61
Hancock	Schuyler	Agstone	390,557	597,276	1.53
Henderson	Warren	All other	385,665	1,830,027	4.75
Operations — 27		Total	2,929,284	\$5,890,546	\$2.01
WEST SOUTHWEST					
Calhoun	Madison	Road and			
Christian	Montgomery	building	2,868,795	\$5,149,881	\$1.80
Greene	Pike	Agstone	529,397	714,540	1.35
Jersey	Sangamon	All other	370,594	664,954	1.79
Macoupin	Scott				
Operations — 34		Total	3,768,786	\$6,529,375	\$1.73
SOUTHWEST					
Clinton	Randolph	Road and			
Jackson	St. Clair	building	5,888,422	\$9,164,669	\$1.56
Johnson	Union	Agstone	612,719	860,594	1.40
Monroe	Washington	All other	763,208	1,281,301	1.68
Pulaski					
Operations — 24		Total	7,264,349	\$11,306,564	\$1.56
NORTHEAST					
Boone	Kendall				
Cook	Lake	Road and			
De Kalb	La Salle	building	19,633,219	\$31,204,561	\$1.59
Du Page	McHenry	Agstone	461,410	686,972	1.49
Grundy	Will	All other	4,094,824	7,555,376	1.85
Kane					
Operations — 33		Total	24,189,453	\$39,446,909	\$1.63
EAST					
Kankakee		Road and			
Livingston		building	4,967,657	\$7,832,502	\$1.58
Vermilion		Agstone	722,713	1,005,446	1.39
		All other	436,963	851,325	1.95
Operations — 14		Total	6,127,333	\$9,689,273	\$1.58
CENTRAL					
Logan		Road and			
Mason		building	1,192,905	\$2,100,103	\$1.76
Menard		Agstone	197,106	385,703	1.96
Peoria		All other	246,063	514,406	2.09
Operations — 8		Total	1,636,074	\$3,000,212	\$1.83
EAST SOUTHEAST					
Clark	Douglas	Road and			
Clay	Fayette	building	1,539,115	\$3,003,881	\$1.95
Coles	Marion	Agstone	499,985	969,745	1.94
Crawford	Moultrie	All other	91,798	215,870	2.35
Cumberland	Shelby				
Operations — 19		Total	2,130,898	\$4,189,496	\$1.97
SOUTHEAST					
Hardin		Road and			
Massac		building	800,205	\$1,469,231	\$1.84
		Agstone	200,334	320,869	1.60
		All other	471,659	843,718	1.79
Operations — 6		Total	1,472,198	\$2,633,818	\$1.79
STATE TOTALS					
Counties — 67		Road and			
Operations — 254		building	43,315,868	\$69,516,795	\$1.60
		Agstone	4,023,336	6,195,470	1.54
		All other	7,218,378	14,284,822	1.98
		Total	54,557,582	\$89,997,087	\$1.65

^aBased on U.S. Bureau of Mines figures. All values at the quarry.^bStone used for cement and lime not included.^cSummary of commercial stone production. Figure 3 shows regions and counties.

TABLE 9 - ILLINOIS COMMON SAND PRODUCTION BY REGIONS, 1971^a

Producing counties and operations ^b		Sand use	Tons	Value	Average per ton
NORTHWEST					
Bureau	Ogle				
Carroll	Rock Island	Paving	984,415	\$ 803,661	\$0.82
Henry	Stephenson	Building	899,554	862,466	0.96
Jo Daviess	Whiteside	All other	387,313	282,957	0.73
Lee	Winnebago				
Operations — 28		Total	2,271,282	\$1,949,084	\$0.86
WEST					
Adams	Schuyler	Paving	128,474	\$ 125,661	\$0.98
Brown		Building	130,955	180,468	1.38
Fulton		All other	83,169	90,900	1.09
Operations — 9		Total	342,598	\$ 397,029	\$1.16
WEST SOUTHWEST					
Bond	Pike	Paving	323,586	\$ 381,240	\$1.18
Madison	Sangamon	Building	1,533,129	1,146,785	0.75
Morgan	Scott	All other	181,657	132,250	0.73
Operations — 17		Total	2,038,372	\$1,660,275	\$0.81
SOUTHWEST					
Alexander	Randolph	Paving	258,552	\$ 318,506	\$1.23
Clinton		Building	252,694	273,857	1.08
Jackson		All other	—	—	—
Operations — 6		Total	511,246	\$ 592,363	\$1.16
CENTRAL					
De Witt	Peoria	Paving	1,305,240	\$1,340,546	\$1.03
Logan	Stark	Building	634,000	742,281	1.17
McLean	Tazewell	All other	266,401	285,482	1.07
Macon	Woodford				
Marshall					
Operations — 24		Total	2,205,641	\$2,368,309	\$1.07
NORTHEAST					
Boone	Kendall				
Cook	Lake				
De Kalb	La Salle	Paving	4,590,555	\$6,215,782	\$1.35
Du Page	McHenry	Building	3,596,167	4,398,702	1.22
Grundy	Will	All other	1,402,662	1,287,511	0.92
Kane					
Operations — 51		Total	9,589,384	\$11,901,995	\$1.24
EAST					
Champaign	Kankakee	Paving	416,437	\$ 413,099	\$0.99
Ford	Livingston	Building	184,124	195,966	1.06
Iroquois	Vermilion	All other	280,910	196,206	0.70
Operations — 16		Total	881,471	\$ 805,271	\$0.91
EAST SOUTHEAST					
Clark	Jasper	Paving	318,199	\$ 412,306	\$1.30
Coles	Lawrence	Building	135,230	111,743	0.83
Crawford	Shelby	All other	233,117	184,165	0.79
Payette					
Operations — 16		Total	686,546	\$ 708,214	\$1.03
SOUTHEAST					
Gallatin	White	Paving	173,300	\$ 188,100	\$1.09
Massac		Building	518,092	478,734	0.92
Wabash		All other	52,335	95,868	1.83
Operations — 9		Total	743,727	\$ 762,702	\$1.03
STATE TOTALS					
Counties — 61		Paving	8,498,758	\$10,198,901	\$1.20
Operations — 176		Building	7,883,945	8,391,002	1.06
		All other	2,887,564	2,555,339	0.88
		Total	19,270,267	\$21,145,242	\$1.10

^aBased on U.S. Bureau of Mines figures. All values at the pit.^bSummary of commercial sand production. Figure 3 shows regions and counties.

TABLE 10 - ILLINOIS GRAVEL PRODUCTION BY REGIONS, 1971^a

Producing counties and operations ^b		Gravel use	Tons	Value	Average per ton
NORTHWEST					
Bureau	Putnam				
Carroll	Rock Island	Paving	577,274	\$ 660,293	\$1.14
Jo Daviess	Stephenson	Building	619,209	742,510	1.20
Lee	Whiteside	All other	184,112	156,595	0.85
Ogle	Winnnebago				
Operations — 26		Total	1,380,595	\$1,559,398	\$1.13
WEST					
Adams	Schuyler	Paving	314,449	\$ 478,884	\$1.52
Brown		Building	98,686	135,713	1.38
Fulton		All other	—	—	—
Operations — 7		Total	413,135	\$ 614,597	\$1.49
WEST SOUTHWEST					
Bond	Scott	Paving	143,494	\$ 215,867	\$1.50
Pike		Building	87,157	137,157	1.57
Sangamon		All other	56,897	65,745	1.16
Operations — 10		Total	287,548	\$ 418,769	\$1.46
SOUTHWEST					
Alexander		Paving	30,371	\$ 21,526	\$0.71
Clinton		Building	—	—	—
Union		All other	—	—	—
Operations — 4		Total	30,371	\$ 21,526	\$0.71
CENTRAL					
De Witt	Mason	Paving	2,458,460	\$3,948,953	\$1.61
Logan	Peoria	Building	721,857	1,175,745	1.63
McLean	Stark	All other	139,458	112,393	0.81
Macon	Tazewell				
Marshall	Woodford				
Operations — 36		Total	3,319,775	\$5,237,091	\$1.58
NORTHEAST					
Boone	Kendall				
Cook	Lake				
De Kalb	La Salle	Paving	8,340,380	\$11,125,848	\$1.33
Du Page	McHenry	Building	5,940,596	6,636,590	1.12
Grundy	Will	All other	1,301,835	1,225,564	0.94
Kane					
Operations — 66		Total	15,582,811	\$18,988,002	\$1.22
EAST					
Champaign	Livingston	Paving	354,463	\$ 565,245	\$1.59
Ford	Vermilion	Building	71,500	108,575	1.52
Iroquois		All other	139,410	108,369	0.78
Operations — 17		Total	565,373	\$ 782,189	\$1.38
EAST SOUTHEAST					
Clark	Jasper	Paving	549,051	\$ 681,287	\$1.24
Coles	Lawrence	Building	132,115	174,128	1.32
Crawford	Moultrie	All other	78,378	65,062	0.83
Fayette	Shelby				
Operations — 12		Total	759,544	\$ 920,477	\$1.21
SOUTHEAST					
Gallatin	White	Paving	612,405	\$ 532,615	\$0.87
Massac		Building	64,333	100,205	1.56
Wabash		All other	—	—	—
Operations — 8		Total	676,738	\$ 632,820	\$0.94
STATE TOTALS					
Counties — 59		Paving	13,380,347	\$18,230,518	\$1.36
Operations — 186		Building	7,735,453	9,210,623	1.19
		All other	1,900,090	1,733,728	0.91
		Total	23,015,890	\$29,174,869	\$1.27

^aBased on U.S. Bureau of Mines figures. All values at the pit.^bSummary of commercial gravel production. Figure 3 shows regions and counties.

TABLE 11 - ILLINOIS SILICA SAND PRODUCTION, 1970-1971^a

Silica sand use	1970		1971	
	Tons	Value	Tons	Value
Glass sand	2,140,476	\$ 5,429,124	2,192,643	\$ 8,010,892
Molding sand	1,100,298	4,280,945	1,058,487	4,097,522
Other uses ^b	812,535	4,173,065	817,046	3,491,003
Ground silica sand ^c	<u>312,659</u>	<u>2,885,903</u>	<u>150,695</u>	<u>682,625</u>
Total silica sand	4,365,968	\$16,769,037	4,218,871	\$16,282,042

^aBased on U.S. Bureau of Mines figures.^bBlast, engine, filtration, grinding, oil, other.^cFor abrasives, ceramics, foundry, filler, chemical.

TABLE 12 - PRODUCTION OF ILLINOIS CLAY PRODUCTS, 1970-1971

Clay products reported	1970		1971	
	Amount	Value	Amount	Value
Face brick (number)	95,277,375	\$ 4,782,544	118,572,375	\$ 5,798,154
Common brick (number)	96,522,679	3,996,687	80,772,928	3,776,980
Drain and sewer tile (tons)	138,963	6,573,053	125,088	7,343,341
Lightweight aggregate (tons)	530,998	3,266,125	602,434	3,910,554
Clay and silica refractories	—	11,408,848	—	9,486,121
Pottery and whiteware	—	<u>23,907,454</u>	—	<u>29,056,883</u>
Total		\$53,934,711		\$59,372,033

TABLE 13 - FLUORSPAR SHIPPED AND CONSUMED, 1960-1971^a

Year	Fluorspar shipments			Fluorspar consumed in United States ^b	Illinois shipments as percent of U.S. consumption
	United States	Illinois	Illinois as percent of U.S.		
1960	229,782	134,529	58.5	643,759	20.9
1961	197,354	116,908	59.2	687,940	17.0
1962	206,026	132,830	64.5	652,888	20.3
1963	199,948	132,060	66.1	736,350	17.9
1964	217,137	127,454	58.7	831,561	15.3
1965	240,932	159,140	66.1	930,127	17.1
1966	253,068	176,175	69.6	1,065,124	16.5
1967	295,643	210,207	71.1	1,091,158	19.3
1968	252,411	188,325	74.6	1,243,414	15.1
1969	182,567	88,480	48.5	1,356,624	6.5
1970	269,221 ^c	148,208	55.1 ^c	1,372,404 ^c	10.8 ^c
1971	272,071	138,051	50.7	1,344,742	10.3

^aFluorspar figures, in tons, U.S. Bureau of Mines.^bFluorspar consumed includes domestic and foreign material.^cRevised figures.

TABLE 14 — SUMMARY OF MINERALS PRODUCED BY ILLINOIS COUNTIES, 1971

This table is a reference to the counties of Illinois producing any of 14 mineral products. The number in parentheses beside each product is the total number of counties producing that product. The numbers within the table show the position held by each county among all counties producing a selected mineral product.

County	Cement (3)	Clay products (21)	Coal (24)	Crude oil (42)	Fluorspar (2)	Lead (3)	Lime (2)	Natural bonded molding sand (1)	Common sand (61)	Common gravel (59)	Silica sand (2)	Stone (67)	Tripoli (1)	Zinc (3)
Adams	-	-	-	37	-	-	2	-	46	53	-	12	-	-
Alexander	-	-	-	-	-	-	-	-	44	50	-	-	1	-
Bond	-	-	-	31	-	-	-	-	28	37	-	-	-	-
Boone	-	-	-	-	-	-	-	-	32	26	-	45	-	-
Brown	-	20	-	38	-	-	-	-	53	52	-	61	-	-
Bureau	-	-	-	-	-	-	-	-	30	15	-	-	-	-
Calhoun	-	-	-	-	-	-	-	-	-	-	-	56	-	-
Carroll	-	-	-	-	-	-	-	-	56	54	-	35	-	-
Cass	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Champaign	-	-	-	41	-	-	-	-	14	19	-	-	-	-
Christian	-	-	12	19	-	-	-	-	-	-	-	25	-	-
Clark	-	-	-	22	-	-	-	-	48	25	-	11	-	-
Clay	-	-	-	7	-	-	-	-	-	-	-	50	-	-
Clinton	-	-	-	15	-	-	-	-	41	55	-	53	-	-
Coles	-	-	-	21	-	-	-	-	18	46	-	28	-	-
Cook	-	1	-	-	-	-	1	-	11	4	-	1	-	-
Crawford	-	4	-	6	-	-	-	-	37	28	-	66	-	-
Cumberland	-	-	-	26	-	-	-	-	-	-	-	64	-	-
De Kalb	-	-	-	-	-	-	-	-	24	22	-	38	-	-
De Witt	-	-	-	23	-	-	-	-	52	23	-	-	-	-
Douglas	-	-	16	34	-	-	-	-	-	-	-	60	-	-
Du Page	-	7	-	-	-	-	-	-	16	5	-	16	-	-
Edgar	-	-	-	29	-	-	-	-	-	-	-	-	-	-
Edwards	-	-	-	17	-	-	-	-	-	-	-	-	-	-
Effingham	-	-	-	20	-	-	-	-	-	-	-	-	-	-
Fayette	-	21	-	2	-	-	-	1	45	41	-	43	-	-
Ford	-	-	-	-	-	-	-	-	23	27	-	-	-	-
Franklin	-	-	2	13	-	-	-	-	-	-	-	-	-	-
Fulton	-	-	5	-	-	-	-	-	20	16	-	-	-	-
Gallatin	-	-	11	14	-	-	-	-	22	49	-	-	-	-

TABLE 14 - Continued

County	Cement (3)	Clay products (21)	Coal (24)	Crude oil (42)	Fluorspar (2)	Lead (3)	Lime (2)	Natural bonded molding sand (1)	Common sand (61)	Common gravel (59)	Silica sand (2)	Stone (67)	Tripoli (1)	Zinc (3)
Greene	-	18	-	-	-	-	-	-	-	-	-	33	-	-
Grundy	-	9	19	-	-	-	-	-	2	20	-	62	-	-
Hamilton	-	-	-	9	-	-	-	-	-	-	-	-	-	-
Hancock	-	-	-	-	-	-	-	-	-	-	-	46	-	-
Hardin	-	-	-	-	1	1	-	-	-	-	-	10	-	2
Henderson	-	-	-	-	-	-	-	-	-	-	-	37	-	-
Henry	-	-	-	-	-	-	-	-	57	-	-	41	-	-
Iroquois	-	-	-	-	-	-	-	-	47	58	-	-	-	-
Jackson	-	-	20	-	-	-	-	-	40	-	-	30	-	-
Jasper	-	-	-	12	-	-	-	-	60	56	-	-	-	-
Jefferson	-	-	3	11	-	-	-	-	-	-	-	-	-	-
Jersey	-	-	-	-	-	-	-	-	-	-	-	52	-	-
Jo Daviess	-	-	-	-	-	2	-	-	27	48	-	39	-	1
Johnson	-	-	23	-	-	-	-	-	-	-	-	7	-	-
Kane	-	6	-	-	-	-	-	-	6	2	-	9	-	-
Kankakee	-	15	-	-	-	-	-	-	51	-	-	5	-	-
Kendall	-	-	-	-	-	-	-	-	49	14	-	36	-	-
Knox	-	5	13	-	-	-	-	-	-	-	-	31	-	-
Lake	-	11	-	-	-	-	-	-	3	6	-	63	-	-
La Salle	3	2	-	-	-	-	-	-	12	13	1	44	-	-
Lawrence	-	-	-	3	-	-	-	-	33	17	-	-	-	-
Lee	1	-	-	-	-	-	-	-	31	35	-	27	-	-
Livingston	-	16	-	-	-	-	-	-	59	42	-	4	-	-
Logan	-	-	-	-	-	-	-	-	21	30	-	49	-	-
McDonough	-	3	-	32	-	-	-	-	-	-	-	29	-	-
McHenry	-	-	-	-	-	-	-	-	1	1	-	59	-	-
McLean	-	-	-	-	-	-	-	-	26	7	-	-	-	-
Macon	-	-	-	36	-	-	-	-	15	32	-	-	-	-
Macoupin	-	-	14	42	-	-	-	-	-	-	-	47	-	-
Madison	-	10	-	27	-	-	-	-	5	-	-	15	-	-
Marion	-	-	-	5	-	-	-	-	-	-	-	51	-	-
Marshall	-	-	-	-	-	-	-	-	34	18	-	-	-	-
Mason	-	-	-	-	-	-	-	-	-	39	-	67	-	-
Massac	2	-	-	-	-	-	-	-	36	59	-	32	-	-
Menard	-	-	-	-	-	-	-	-	-	-	-	14	-	-

Continued on page 28

TABLE 14 - Continued

County	Cement (3)	Clay products (21)	Coal (24)	Crude oil (42)	Fluorspar (2)	Lead (3)	Lime (2)	Natural bonded molding sand (1)	Common sand (61)	Common gravel (59)	Silica sand (2)	Stone (67)	Tripoli (1)	Zinc (3)
Mercer	-	-	21	-	-	-	-	-	-	-	-	55	-	-
Monroe	-	-	-	-	-	-	-	-	-	-	-	42	-	-
Montgomery	-	-	7	40	-	-	-	-	-	-	-	22	-	-
Morgan	-	-	-	-	-	-	-	-	55	-	-	-	-	-
Moultrie	-	-	-	39	-	-	-	-	-	51	-	65	-	-
Ogle	-	-	-	-	-	-	-	-	29	33	2	17	-	-
Peoria	-	-	10	-	-	-	-	-	13	10	-	24	-	-
Perry	-	-	1	35	-	-	-	-	-	-	-	-	-	-
Piatt	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pike	-	-	-	-	-	-	-	-	54	31	-	18	-	-
Pope	-	-	24	-	2	3	-	-	-	-	-	-	-	3
Pulaski	-	13	-	-	-	-	-	-	-	-	-	48	-	-
Putnam	-	-	-	-	-	-	-	-	-	44	-	-	-	-
Randolph	-	-	8	28	-	-	-	-	19	-	-	19	-	-
Richland	-	-	-	10	-	-	-	-	-	-	-	-	-	-
Rock Island	-	-	-	-	-	-	-	-	8	24	-	8	-	-
St. Clair	-	-	4	30	-	-	-	-	-	-	-	3	-	-
Saline	-	-	9	18	-	-	-	-	-	-	-	-	-	-
Sangamon	-	17	15	25	-	-	-	-	9	29	-	57	-	-
Schuyler	-	-	-	-	-	-	-	-	58	45	-	58	-	-
Scott	-	14	-	-	-	-	-	-	53	57	-	34	-	-
Shelby	-	-	-	33	-	-	-	-	38	34	-	54	-	-
Stark	-	-	17	-	-	-	-	-	61	43	-	-	-	-
Stephenson	-	-	-	-	-	-	-	-	50	36	-	21	-	-
Tazewell	-	19	-	-	-	-	-	-	10	8	-	-	-	-
Union	-	-	-	-	-	-	-	-	-	47	-	13	-	-
Vermilion	-	12	22	-	-	-	-	-	35	21	-	6	-	-
Wabash	-	-	-	8	-	-	-	-	43	38	-	-	-	-
Warren	-	8	-	-	-	-	-	-	-	-	-	26	-	-
Washington	-	-	-	16	-	-	-	-	-	-	-	23	-	-
Wayne	-	-	-	4	-	-	-	-	-	-	-	-	-	-
White	-	-	-	1	-	-	-	-	17	9	-	-	-	-
Whiteside	-	-	-	-	-	-	-	-	39	40	-	40	-	-
Will	-	-	18	-	-	-	-	-	4	3	-	2	-	-
Williamson	-	-	6	24	-	-	-	-	-	-	-	-	-	-
Winnebago	-	-	-	-	-	-	-	-	7	11	-	20	-	-
Woodford	-	-	-	-	-	-	-	-	42	12	-	-	-	-

CIRCULAR 477

ILLINOIS STATE GEOLOGICAL SURVEY

URBANA, IL 61801